

**Electronic Filing System (EFS) Data**  
**Electronic Patent Application Submission**  
**USPTO Use Only**

EFS ID: 12296


Application ID: 09682443

Title of Invention: METHOD AND APPARATUS FOR  
CONTROLLING HYDROCARBON  
INJECTION INTO ENGINE EXHAUST TO  
REDUCE NOX

First Named Inventor: Michiel van Nieuwstadt

Domestic/Foreign Application: Domestic Application

Filing Date: null

Effective Receipt Date: 2001-09-04 

Submission Type: Utility Patent Filing

Filing Type: new-utility

Confirmation Number: 0

Attorney Docket Number: 200-1758 JDR

Digital Certificate Holder: cn=Damian Porcari, ou=Registered Attorneys, ou=Patent and Trademark  
Office, ou=Department of Commerce, o=U.S. Government, c=US

Certificate Message Digest: snHCugJJV6AKxnx7zCoNRQ==

Total Fees Authorized: \$1150.0

Payment Category: DA - Deposit Account

Deposit Account Number: 61510

Deposit Account Name: Sheri L. Charles

# TRANSMITTAL FORM



Electronic Version 1.0.2

Stylesheet Version: 1.0

Attorney Docket Number:

200-1758 JDR

## METHOD AND APPARATUS FOR CONTROLLING HYDROCARBON INJECTION INTO ENGINE EXHAUST TO REDUCE NOX

First Named Inventor: Michiel Jacques van Nieuwstadt

### SUBMITTED BY

Organization Name:

Ford Motor Company

Name:

Sheri Lynn Charles Electronic Application  
Specialist

Electronic Signature Mark: /slc

Date Signed: 20010904

*I certify that the use of this system is for OFFICIAL correspondence between patent applicants or their representatives and the USPTO. Fraudulent or other use besides the filing of official correspondence by authorized parties is strictly prohibited, and subject to a fine and/or imprisonment under applicable law.*

*I, the undersigned, certify that I have viewed a display of document(s) being electronically submitted to the United States Patent and Trademark Office, using either the USPTO provided style sheet or software, and that this is the document(s) I intend for initiation or further prosecution of a patent application noted in the submission. This document(s) will become part of the official electronic record at the USPTO.*

### Attached Files:

bibd-transmittal

200-1758apds.xml

fee-transmittal

200-1758fee.xml

patent-assignment

200-1758asgn.xml

specification

specification.xml

declaration

declaration 1 of 2.tif

declaration 2 of 2.tif  
consent.tif  
prior art.tif

declaration 1 of 2.tif  
declaration 2 of 2.tif  
consent.tif  
prior art.tif

**Abstract**

**Comments:**

**Abstract**

**DECLARATION AND POWER OF ATTORNEY - ORIGINAL APPLICATION**Attorney's Docket No.  
**200-1758**

As a below named inventor, I hereby declare:

My residence, post office address and citizenship are as stated below next to my name;

I verily believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled

**METHOD AND APPARATUS FOR CONTROLLING HYDROCARBON INJECTION INTO ENGINE EXHAUST TO REDUCE NOX**

the specification of which is attached hereto.

I have reviewed and understand the contents of the specification identified above, including the claims.

I acknowledge my duty to disclose information of which I am aware that is material to the examination of this application in accordance with Section 1.56(a), Title 37 of the Code of Federal Regulations; and as to application for patents or inventor's certificate on the invention filed in any country foreign to the United States of America, prior to this application by me or my legal representatives or assigns,

☒ no such applications have been filed, or☐ such applications have been filed as follows:☐ I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below

| COUNTRY | APPLICATION NO. | DATE OF FILING<br>(month, day, year) | DATE OF ISSUE<br>(month, day, year) | PRIORITY<br>CLAIMED<br>UNDER 35 USC 119 | <input type="checkbox"/> Additional<br>provisional<br>application<br>numbers are listed<br>on a supplemental<br>priority data sheet<br>PTO/SB/02B<br>attached hereto. |
|---------|-----------------|--------------------------------------|-------------------------------------|---|---|
|         |                 |                                      |                                     |   |   |
|         |                 |                                      |                                     |   |   |

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

|                      |               |   |
|----------------------|---------------|---|
| (Application Number) | (Filing Date) | (Status - patented, pending, abandoned) |
|----------------------|---------------|---|

|                      |               |   |
|----------------------|---------------|---|
| (Application Number) | (Filing Date) | (Status - patented, pending, abandoned) |
|----------------------|---------------|---|

**POWER OF ATTORNEY:** - I/we hereby appoint the following Practitioners: Customer No. 022844, Richard M. Sharkansky - 25,800, as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office and all foreign Patent Offices.


Attorney Docket No: 200-1758

Please call 313-322-7725 if this paper becomes separated from the file.

**Address all correspondence and telephone calls to:**

Richard M. Sharkansky  
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

| NAME AND MAILING ADDRESS<br>OF INVENTOR:   | RESIDENCE                 | CITIZENSHIP | SIGNATURE  | DATE      |
|--|---------------------------|-------------|--|-----------|
| Michiel Jacques van Nieuwstadt<br>3750 Middleton Drive<br>Ann Arbor, MI 48105 US | Ann Arbor, MI<br>48105 US | Netherlands |  | 30 JUL 01 |

Attorney Docket No: 200-1758

Please call 313-322-7725 if this paper becomes separated from the file.

PATENT APPLICATION

ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D. C. 20231

Case Docket No. 200-1758  
Date: August 13, 2001

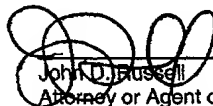
Sir:

Inventor(s):  
Michiel van Nieuwstadt

For: **METHOD AND APPARATUS FOR CONTROLLING HYDROCARBON INJECTION INTO ENGINE  
EXHAUST TO REDUCE NOX**

The attorney or agent below has reviewed this application and its attachments and consents to  
electronic filing by the assignee.

Respectfully submitted:



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Attorney or Agent of Record  
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200-1758-0000

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

## Complete if Known

Application Number To be assigned  
Filing Date Herewith  
Applicants van Nieuwstadt  
Group Art Unit  
Examiner Name  
Attorney Docket Number 200-1758

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL* | Cite<br>No. <sup>1</sup> | DOCUMENT<br>NUMBER | Kind Code <sup>2</sup><br>(if known) | NAME             | DATE<br>MM-DD-YY | Pages, Columns, Lines,<br>Where Relevant Passages or Relevant<br>Figures Appear |
|----------------------|--------------------------|--------------------|--------------------------------------|------------------|------------------|---|
|                      |                          | 5,369,956          |                                      | Daudel et al     | 12-06-94         |   |
|                      |                          | 5,410,873          |                                      | Tashiro          | 05-02-95         |   |
|                      |                          | 5,540,047          |                                      | Dahlheim et al   | 07-30-96         |   |
|                      |                          | 5,628,186          |                                      | Schmelz          | 05-13-97         |   |
|                      |                          | 5,643,536          |                                      | Schmelz          | 07-01-97         |   |
|                      |                          | 5,831,145          |                                      | Logothetis et al | 11-03-98         |   |
|                      |                          | 5,842,341          |                                      | Kibe             | 12-01-98         |   |
|                      |                          | 5,845,487          |                                      | Fraenkle et al   | 12-08-98         |   |
|                      |                          | 5,941,067          |                                      | Hirota et al     | 08-24-99         |   |
|                      |                          | 5,950,422          |                                      | Dolling          | 09-14-99         |   |
|                      |                          | 6,001,318          |                                      | Tillaart et al   | 12-14-99         |   |
|                      |                          | 6,016,653          |                                      | Glassey et al    | 01-25-00         |   |
|                      |                          | 6,017,503          |                                      | Kato et al       | 01-25-00         |   |
|                      |                          | 6,079,203          |                                      | Wakamoto         | 06-27-00         |   |
|                      |                          | 6,119,448          |                                      | Emmerling et al  | 09-19-00         |   |
|                      |                          | 6,134,883          |                                      | Kato et al       | 10-24-00         |   |

## FOREIGN PATENT DOCUMENTS

| EXAMINER<br>INITIAL* | Cite<br>No. <sup>1</sup> | Foreign Patent Document |                     | NAME | DATE<br>MM-DD-YY | Pages, Columns, Lines,<br>Where Relevant Passages or<br>Relevant Figures Appear | T <sup>6</sup> |
|----------------------|--------------------------|-------------------------|---------------------|------|------------------|---|----------------|
|                      |                          | Office <sup>3</sup>     | Number <sup>4</sup> |      |                  |   |                |
|                      |                          |                         |                     |      |                  |   |                |
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|                      |                          |                         |                     |      |                  |   |                |
|                      |                          |                         |                     |      |                  |   |                |

### EXAMINER

### DATE CONSIDERED

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.



# FEE TRANSMITTAL

Electronic Version 1.0.4

Stylesheet Version: 1.0

*Patent fees are subject to annual revisions on or about October 1st of each year.*

Large Entity

**TOTAL FEES AUTHORIZED: \$ 1150**

The commissioner is hereby authorized to charge indicated processing and/or publication fees and credit any overpayments to:

Deposit Account Number: 06-1510



Deposit Account Name: Ford Global Technologies, Inc.

Charge Any Additional Fee Required Under 37 C.F.R. Sections 1.16 and 1.17.

## SUBMITTED BY

Authorized Name: Sheri L. Charles

Electronic Signature Mark: /slc

Date Signed: 20010904

## BASIC FILING FEE

| Fee Description    | Fee Code | Fee Paid |
|--------------------|----------|----------|
| Utility Filing Fee | 101      | \$ 710   |

Subtotal For Basic Filing Fee: \$ 710

## EXTRA CLAIM FEES

|                       | Fee Code | Fee   | Extra Claims | Fee Paid |
|-----------------------|----------|-------|--------------|----------|
| Total Claims: 9       | 103      | \$ 18 | 0            | \$ 0     |
| Independent Claims: 8 | 102      | \$ 80 | 5            | \$ 400   |

Subtotal For Extra Claims Fees: \$ 400

ADDITIONAL FEES

| Fee Description                                   | Fee Code | Fee Paid |
|---|----------|----------|
| Recording Each Patent Assignment Per Property Fee | 581      | \$ 40    |

Subtotal For Additional Fees: \$ 40

0962443-090404  
F04060-51128960